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New York City Transit

October 17, 1996

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Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Re: Comments on NPRM (FCC 96-155), WT Docket 96-86

Dear Mr. Caton:

Please accept for filing the original and ten (10) copies of the comments of the New York City Transit Authority ("NYCT") in connection with the above proceeding. Because this docket has been established in connection with the activities of the Public Safety Wireless Advisory Committee ("PSWAC"), we are also enclosing eleven (11) copies of "NYCT's Position Statement Concerning Matters Before PSWAC" which was submitted to the PSWAC Steering Committee and Sub-Committee chairs in June 1996. These submissions constitute our comments to the Notice of Proposed Rule Making.

Sincerely,


Florence Dean
Special Counsel

enclosures

cc: J. Yurman

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**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

IN THE MATTER OF

The Development of Operational,
Technical, and Spectrum
Requirements for Meeting
Federal, State and Local Public
Safety Agency Communication
Requirements through the
Year 2010

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WT Docket No. 96-86

**RECEIVED
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Dated: October 17, 1996

TO: THE COMMISSION

COMMENTS OF THE NEW YORK CITY TRANSIT AUTHORITY

The New York City Transit Authority (NYCT) hereby submits the following comments in response to the above-referenced Notice of Proposed Rule Making (NPRM). The Federal Communications Commission ("the Commission") requested comments on a number of issues throughout the NPRM.

BACKGROUND/INTRODUCTION

NYCT is an affiliated agency of the Metropolitan Transportation Authority which, through its various affiliates and subsidiaries, provides mass transportation services via bus, subway and commuter rail operations throughout the New York metropolitan region. NYCT's Position Statement Concerning Matters Before the Public Safety Wireless Advisory Committee

(PSWAC)", submitted in June 1996,¹ describes in more detail the nature and extent of public safety services provided by large, publicly-owned providers of mass transportation services, who have entrusted in their care the lives and safety of millions of people each working day, and delineates their communications needs and their dependency on effective, reliable wireless communications to perform their essential governmental functions.

For the sake of convenience, NYCT has organized its comments in response to the instant NPRM by utilizing the paragraph numbering sequence employed in NPRM 96-86, as released April 10, 1996.

SPECIFIC COMMENTS

Historical Comments on Local Government Radio Service (Paragraph 10)

As noted in paragraph 10, local governmental entities, including public authorities, have historically been included within the framework of the public safety radio service (PSRS) under Subpart B of Part 90 of the Commission's rules. Further sub-classifications were made within PSRS, one of which was denominated "Local Government Radio Service", to address a broad segment of public agency needs. Hence, the Commission has long recognized that there are a wide variety of essential governmental functions and public safety and welfare services performed by an array of governmental entities which extend beyond emergency first responders. We do not understand the instant NPRM to be retreating from this concept, but, rather, to be placing the listed functions into a consolidated unit. It is critical that local governmental entities

¹ The "New York City Transit Authority Position Statement Concerning Matters Before PSWAC" was submitted to the PSWAC Steering Committee and Sub-Committee chairs. Copies were made available to the public at the PSWAC Steering Committee meeting of June 25, 1996, held in Washington, D.C.

continue to be recognized as public safety providers in order to assure that adequate spectrum allocation for vital governmental services can be made and preserved.

The Goals of PSWAC (Paragraphs 18-20)

The Commission's stated goal -- to foster a regulatory environment which will ensure that governmental agencies continue to be able to have the communications resources needed to perform their roles which are vital to the well-being of the public at large -- is an essential statement of policy. If the Commission can facilitate solutions to address the demand for adequate spectrum, if it can ensure an adequate transition period and maximize the competitive environment for communications-related service and equipment, and if it will provide a level of regulatory flexibility to enable creative approaches to relieving the effects of overly congested spectrum, it will have achieved its goal of enabling public safety agencies to respond to the communities they serve.

Definitions of "Public Safety" (Paragraphs 23-25)

The NPRM (paragraph 23) states quite clearly that numerous state and local governments perform vital functions on which the public depends. These entities need the same protection afforded more traditional public safety entities, such as emergency first responders, because their functions are not only essential to the public welfare, but are often critically dependent upon having reliable voice and data communications.

Thus, as we understand the proposed definitions as suggested by PSWAC, the term "Public Safety" includes the concept not only of preserving life, property, and natural resources,

but also the more generalized function of serving the public welfare -- which we take as an intent to include a broad array of essential governmental functions. Accordingly, governmental entities would generally be included within the definition of Public Safety Services Provider or Public Safety Support Provider under paragraph 24. In addition, as we understand it, public safety agencies will also include some properly authorized non-governmental entities as well as all governmental entities whose role it is to protect life or property or to serve the public welfare².

What is left unclear in NPRM 96-86 is the underlying purpose of the separate definitions for Public Safety Services Provider, Public Safety Support Providers, and Public Services Provider. If there is any doubt about where local or regional governmental entities "fit" in the context of this definition, then further rulemaking needs to be done to clarify that point.

With respect to large, governmental mass transit providers, we have set forth in considerable detail in the attached Position Statement the public safety impact which such providers have.

Public mass transit providers in urban/suburban regions typically are responsible for the safe transportation of hundreds of thousands of passengers each working day. In the case of NYCT, more than 5 million passengers are transported on its extensive bus and subway routes each business day. A single "rush hour" subway train may have more than 1,000 passengers on-board, and some subway lines may carry 30 trains per hour. NYCT's ability to have clear, reliable communications (or lack thereof) can quickly impact the lives and safety of thousands of passengers. Its communications systems are essential in preventing or mitigating the effects of a

² The definitions also include under "Public Services" non-governmental entities which provide necessary services for the general public, such as public utilities and private transportation companies. These entities would periodically have a need for interoperability with the public safety agencies, as well as their own needs for clear communications.

disaster or to respond to criminal acts, or other instances requiring immediate assistance. Collisions, derailments, fires and other accidents require extensive and immediate coordination among many internal operating personnel as well as outside rescue agencies. Mass transit, in addition, serves as a key component in local emergency management plans. Rather than repeat the myriad ways in which mass transit directly affects public safety, we refer the Commission to the accompanying Position Statement which demonstrates how and why public mass transit is an integral component of public safety.

Definitions of Interoperability (Paragraphs 26-27)

NYCT supports the definitions presented by PSWAC. Interoperability is a necessary and vital link for public safety to manage all types of incidents whether small or large scale. The definitions provide a clear distinction of the types of interoperability links required and will promote interoperability methodologies.

Interoperability Needs (Paragraph 28-31)

Generally, the interoperability needs described in paragraphs 29-30 and listed in the PSWAC final report do fall into the day-to-day, mutual aid, and emergency preparedness/task force contexts. NYCT, however, submits that "interoperability needs" may well vary from region to region especially with respect to day-to-day interoperability needs. For example, in New York City, day-to-day interoperability is required among the public mass transit entities and traditional first responders such as Police, Fire, and Emergency Medical Services for multi-disciplinary emergency coordination. During incidents in the subway system, these "first

responders” should be in constant communications with the NYCT control center and supervising operating personnel in order to support the first responders’ missions and objectives. NYCT personnel must be able to direct the emergency first responders to the location(s) where the incidents have occurred; must coordinate power on/power off to the third rail to ensure the safety of rescue personnel and passengers; must coordinate “reach” or “rescue” trains to assist passengers stranded on disabled trains in tunnels; and must coordinate movements of trains in the general area of the emergency.

The essential point is that interoperability needs exist among all types of personnel, Public Safety Providers, Public Safety Support Providers, and Public Service Providers, based on the circumstances. Interoperability cannot, however, compensate for any inadequacies inherent in the public safety agencies’ own communications systems, which must be capable of transmitting critical information to be shared among other personnel at the scene. The general categories set forth in paragraphs 28-30 of the NPRM, however, enable appropriate planning to be accomplished which will, hopefully, address most incidents expected to be encountered.

Interoperability Options (Paragraph 32-42)

Given that a singular, designated spectrum band may not meet the needs of all public safety agencies, it may well be the case that interoperability implementation must be addressed by specific regional advisory committees. For example, there exists in the New York City area the New York Metropolitan Advisory Committee (NYMAC) whose purpose is to address interoperability needs in this region. The NYMAC interoperability guidelines were developed

consistent with the spirit expressed in the PSWAC interoperability subcommittee and are in accordance with the PSWAC Final Report recommendations.

NYMAC reviewed the technological and spectrum issues, the coverage area required, individual agency communications equipment resources, all with a view towards developing an interoperability system which will cover the needs of the New York City region, including NYCT's subway system. NYMAC's interoperability activities are being coordinated predominantly by the New York City Police Department (NYPD). With respect to NYPD's coverage needs in NYCT's system, NYCT has been designing a police radio system for underground subway locations. It is expected that by using conventional repeaters and bi-directional repeater amplifiers throughout strategic locations within the subway, existing conventional radio technology can provide coverage. The future expansion potential and efficiency improvements for this system are very promising. Interoperability is dependent upon maintaining the availability of frequencies for this use. In 1994, broadcasters in this area cooperated in making UHF-TV Channel 16 available for public safety entities on a temporary basis, to be made permanent if that channel remains unassigned for DTV (FCC 95-115, March 17, 1995). At present, the continued availability of Channel 16 is subject to proceedings in MM Docket No. 87-268, released August 14, 1996.

The NYMAC approach is given as an example of development of an interoperability plan conceived by concentrating on regional needs. However, we would urge the Commission to designate a portion of exclusive spectrum to meet these regional needs, in all bands, so as to handle the differences in spectrum propagation characteristics, in addition to providing the necessary channels for interoperable systems. This is in accordance with the Commission's

conclusion that designation of new universal mutual aid channels would be an effective first step for providing interoperability among governmental (federal, state, and local) entities.

Operational Issues (Paragraphs 48-50)

The PSWAC report addresses the service requirements of public safety agencies. As the nation's largest provider of public mass transportation, it would be desirable for NYCT to be able to utilize all of the service features listed in paragraph 48. Enhanced dispatch, transaction processing, decision support, and linking/roaming are by far the most essential services. Facsimile, snapshot, and full motion video are services which could prove to be desirable, depending on needs, available funding sources and technology. How technology will develop, and the extent to which commercial entities are willing to engage in that developmental effort to address the public safety needs listed in the NPRM and PSWAC Final Report, are not yet known.

With respect to the specific questions raised in paragraph 50 concerning whether day-to-day communication needs differ from those associated with unforeseen occurrences, mass transit providers have an ongoing need for reliable and effective communications capabilities (mostly, enhanced dispatch) on a continuing basis. NYCT operates a vast and extensive transportation network 24 hours per day, seven days per week, and any distinction between its operational functions and public safety functions would be artificial. In the matter of a few minutes a seemingly minor, routine event (e.g., debris on the tracks) can quickly become a major emergency (a fire or smoke condition affecting passengers on trains and/or electrical arcing conditions producing dense smoke and explosions) requiring the dispatch of internal and external personnel and resources to the scene to remedy the condition, to rescue passengers and to

coordinate diversion of other passenger trains away from danger. The accompanying position statement describes several recent operational matters at NYCT which quickly developed into major events affecting thousands of people. Interoperability alone will not address the communications problems affecting public mass transit providers, particularly those with older communications systems. They must have the ability to communicate effectively within their own agency, ascertain with clarity the location and scale of the incident and have the communications capabilities of quickly locating all other surrounding trains to re-direct other passengers.

System Requirements (Paragraphs 51-55)

The system requirements for public safety would appear to be generally best determined on a regional basis. Generally, "trunking" type systems facilitate the most efficient spectrum usage for normal operations through the ability to separate and share system resources through separate "talk groups". Conventional type systems, while they sacrifice spectrum efficiency, are relatively simple to design and construct, and the ability to concentrate one radio link in a particular zone or jurisdictional area contributes to budgetary savings.

The best approach to the efficiency versus budgetary aspects of system requirements may well be to balance the efficiencies and budgetary issues through use of systems that are both trunked and conventional. At first glance, shared or joint use of trunked communications networks may appear to be the most efficient means of handling systems requirements. However, in large, congested urban areas, there may be a high volume of routine needs of multiple public safety agencies all of which need clear and unimpeded access to channels to

handle their critical functions. This factor may well counsel against the use of shared systems. Thus, a decision to implement shared systems should be made at a regional level. Generally, we believe that trunking should be used as the main communications "thoroughfare" for most operational communications. Less spectrally efficient conventional systems would still be required to fill the peak system demand issues that may occur in large scale or multiple emergencies. For these reasons, decisions to utilize a particular system technology or combination of technologies is best left to regional entities to determine.

Technology Issues (Paragraph 56-68)

NYCT urges the Commission to investigate and determine a practical digital technology standard which will meet the stringent technical and budgetary constraints of public safety agencies without reduction of system robustness and quality. The Commission should also address the relationship between engineering design for systems and the selection of public safety frequencies, systems, and antennas to meet particular agency needs. Efficiencies are not just measured through spectrum use alone, but also through the effective and practical implementation of systems to provide effective coverage for a specific public safety jurisdiction (as opposed to the entire geographical area). Proper engineering design should provide a high level of system reliability within the jurisdictional area (and limited areas surrounding the jurisdiction) and provide for the re-use of spectrum in areas outside of the core area of use.

Regulatory incentives to promote efficient technology implementation may include priority access to spectrum licensing/assignment and receipt of funding through auction proceeds.

Spectrum Allocation Options (Paragraphs 72-86)

The Commission, in paragraph 79, has asked for comments on the issues involved in promoting greater sharing of public safety bands. We would urge the Commission to retain sufficient flexibility in the regulatory process to encourage the public safety agencies to develop creative solutions for addressing regional spectrum requirements. For example, it might be possible for agencies with similar functions and needs to pool resources to procure efficient state-of-the-art communications equipment if they were allowed to first look to their current frequencies and develop a plan to, in essence, re-farm the channels for their own use. Assume, for the sake of argument, that three local entities each have ten 25 kHz bandwidth channels but each needs fifteen channels. If those three agencies could be allowed to split their channels to 12.5 kHz bandwidth channels, 60 channels would be created. Each agency could use the excess to meet their own needs for 15 channels and there would still be excess spectrum available. They should be encouraged to proceed along this path. Should it not be technically feasible to utilize the split channels in this manner, the agencies should, in essence, be credited with entitlement to additional spectrum upon the commitment to return the excess channels for reassignment. While this construct is, perhaps, overly simplistic, it is being offered simply as a conceptual framework which might be used to induce creative approaches to spectrum efficiency and sharing.

With respect to the proposals set forth in paragraphs 83-85, NYCT has serious reservations concerning whether a national communications system for all federal, state

and local governments, as envisioned by the NTIA, would be a practical alternative to the independent communications systems as developed by various public safety agencies. While it is true that the proliferation of independent communications systems by public agencies has resulted in the use of different equipment and technologies which inhibit the ability for other agencies to achieve interoperability, it is our opinion that setting forth standards for interoperability would be preferable to the proposal of the NTIA. Absent a commitment from the federal government that it is prepared to develop and maintain a state-of-the-art communications system for use by all public safety agencies, the proposal would appear to be extraordinarily costly and difficult to implement -- with the full burden of those costs being borne by local and governmental entities. Setting communications requirements and capabilities is best left to local regional governmental entities which, ultimately, are responsible to the public they serve for the quality and responsiveness of governmental services. Of course, provisions need to be made for federal agencies to communicate with these local entities, but that can best be accomplished by developing interoperability standards.

In paragraph 86, the Commission expresses some optimism concerning the role of commercial wireless services in relieving spectrum congestion. Regulatory requirements compelling the utilization of commercial entities would, we submit, be unwise and unworkable for many public safety agencies. It may well be the case that commercial entities will offer a wide array of services at a reasonable cost which will be attractive for many governmental entities, particularly those which lack sufficient capital funding sources to construct and obtain advanced communications infrastructure and

related equipment. Assuming that reliable, priority access can be obtained, such services may prove to be the most cost-effective means of modernizing communications systems. For other entities, commercial services simply cannot provide the extensive backbone needed to support operations. NYCT's requirements, for example, require coverage along hundreds of miles of track, much of it in the harsh environment of underground facilities. While NYCT has used SMRS commercial services to meet limited, stand-alone needs, and paging devices and cellular phones are heavily used currently, commercial suppliers have not demonstrated an interest in providing the overall coverage requirements necessary to a vast and complex public safety network.

We would suspect that the more innovative or esoteric uses of technology (e.g., full motion video transmissions), while useful in many circumstances, might well prove to be cost-prohibitive unless some type of shared services network can be offered for these services. The extent to which extensive frequency allocations will be needed to support innovative technologies may well, as a practical matter, dissuade public safety agencies from diverting limited spectrum resources for their implementation. It would appear, therefore, that these may be the types of enhanced communications products and services which commercial services could provide, assuming there exists a wide enough market for the products.

Transition (Paragraphs 87-88)

As is noted in paragraph 88, public safety agencies conduct their activities and develop communications systems to perform their essential governmental functions, not to

maximize profit. NYCT offers its services throughout the City of New York on a 24-hour per day basis, 365 days per year, and its communications network must be fully compatible with its mission. Public safety agencies, despite exhortations to operate "more like a business" are not at liberty to ignore part of their service area or to dispense with detailed acquisition requirements because "good business judgment" might suggest doing so. Government, unlike private entities, must provide for the general welfare of all its citizenry and must proceed with procurements in a manner which will ensure integrity in the expenditure of public funds. While these goals need not necessarily be incompatible with the greater utilization of commercial services, there remains an open issue as to whether commercial services will supply and support the products and services necessary to meet demands where it may not be as profitable to do so.

Use of Commercial Services (Paragraph 90)

Without knowing what the Commission might propose with respect to changes in its rules and licensing procedures to provide public safety agencies with additional incentives to move to commercial offerings, it is difficult to offer meaningful commentary. If there are economically advantageous reasons to utilize commercial services, without sacrificing quality and coverage, it is reasonable to assume that public safety agencies will choose that route. Absent receipt of such assurances that their fundamental missions will not be compromised, public safety agencies should not be required to, in effect, pay for spectrum (a valuable public resource) by being forced to use commercial services.

Funding for Spectrum Migration (Paragraphs 91-92)

The concept of using auction proceeds to fund relocation costs of public safety entities is an interesting one, worthy of future exploration.

Spectrum Administration (Paragraphs 93-94)

NYCT believes that frequency coordination pre-licensing is critical to ensure that all proper engineering tasks have been accomplished to prevent interference. The Commission should continue to perform its licensing functions and utilize frequency coordinators on an advisory basis in the pre-licensing phase.

Competition (Paragraphs 95-101)

Competition is necessary in the governmental environment to ensure the greatest benefit and lowest cost to the taxpayer. To have meaningful competition in the realm of communications goods, there must be capable and compatible equipment. True competition can only be accomplished when and if equipment from all vendors are truly interoperable. As stated in the technology issues section of NYCT's comments, the Commission should investigate and determine a practical technology standard to promote true competition among vendors.


Conclusion

NYCT appreciates the opportunity of participating in the PSWAC process and in submitting comments to the Commission for its consideration.

Comments of the New York City Transit Authority, WT Docket No. 96-86
October 17, 1996

Dated: October 17, 1996

New York City Transit Authority
Office of the General Counsel
130 Livingston Street, 12th Floor
Brooklyn, N.Y. 11201

By: 
Florence Dean, Special Counsel

S:WT9686

**New York City Transit Authority
Position Statement**

concerning

MATTERS BEFORE

**THE PUBLIC SAFETY
WIRELESS ADVISORY COMMITTEE
(PSWAC)**



**New York City Transit Authority
Position Statement
Concerning
Matters Before
The Public Safety Wireless Advisory Committee (PSWAC)**

Introduction

The MTA-New York City Transit Authority (NYCT) wishes to submit this Position Statement to PSWAC, and appreciates the efforts of the Federal Communications Commission (FCC) and the National Telecommunications & Information Agency (NTIA) to address the communication needs of public safety providers through the year 2010. The activities of PSWAC will have long-term impact on the safety and security of the public, and for that reason alone, the importance of its work cannot be underestimated. In recognition of the value of the work being performed by PSWAC and its subcommittees, NYCT has been pleased to offer the assistance of its technical specialist on radio communications matters, Joseph Yurman, who has worked with various PSWAC subcommittees and work groups in their efforts to produce final reports.

NYCT also recognizes the efforts undertaken by APCO to insure that the users of the public safety spectrum are represented in the process undertaken by PSWAC. As noted in the APCO International Policy Statements Regarding PSWAC and its Subcommittee Reports (p. 5):

"public safety also includes a number of general governmental functions performed by federal, state, county and city agencies. This consists of many varied tasks. Whether it is for environmental control, highway maintenance or governmental mass transit, the use of wireless communications to perform these duties which serve taxpayers is growing. Demands upon all levels of government are increasing each year and, as a result, using radios has become a key to delivery of service. With continued budget constraints, 'Working Smarter' has become a necessity, not an option."

NYCT's purpose in submitting these comments is to augment that statement by describing the vital role communications plays in ensuring the public safety, as represented by a governmental entity providing mass transit services. While it may be the case that certain aspects of NYCT's operations might be considered unique because of its size and its location in one of the most densely populated (and most heavily congested, from a radio spectrum viewpoint) regions in the county, much of what is described below is applicable to other public mass transit providers.

This commentary will focus on several of the key issues before PSWAC, including the scope of the definition of "public safety", and will describe how mass transit impacts public safety and why it is necessary for such providers to be recognized in that context. It will then set forth NYCT's views on various policy issues being considered by PSWAC and its subcommittees, such as interoperability, re-farming, the issue of utilization of commercial services to meet future communications needs, and the concept of auctioning spectrum.

Executive Summary

- Public mass transit, because of the volume of people it carries daily, can have a profound and immediate impact on the safety of large numbers of people.
- Mass transit can also serve as a key component in local emergency management plans to evacuate people from areas of danger.

- Effective intra-agency communications systems and provision for interoperability among the multiple agencies responding to a mass transit incident and the transportation provider are critical for a variety of reasons:
 - * to prevent or minimize the likelihood of a major disaster;
 - * to mitigate the effects of an incident once it develops; and
 - * to insure the safety of passengers and responding personnel.

- NYCT depends upon prompt, reliable and effective voice communications -- including wireless communications -- to prevent accidents and to mitigate the harm that can occur in the wake of accidents, criminal attacks or natural disasters.
 - * Operating personnel with direct access to the public, such as token booth clerks, train operators and conductors, bus drivers, as well as transit police, firefighters and emergency medical rescue workers, must have access to wireless communications to prevent harm to the public. Transit personnel are seen as visible symbols of security because of their ability to summon help in the event of an emergency.
 - * Recent fatal accidents, both at NYCT and elsewhere, illustrate the critical need for effective wireless communications in the event of fires, collisions, derailments and other accidents, and the potential for even greater tragedy in the absence of such communications capabilities.

- NYCT urges the Public Safety Wireless Advisory Committee to recognize the public safety status and needs of public mass transit agencies and should recommend that they be protected in future rule-making proceedings in the following areas:
 - * Spectrum allocation

- * Access to frequencies
- * Re-farming requirements
- * Interoperability
- * Exemption from spectrum auctions

Interest of NYCT

NYCT is the nation's largest provider of mass transit services.¹ It is a public authority, created by the State of New York, for the purpose of providing rapid transit (subway) and surface (bus) transportation services in the City of New York. It transports approximately 3.6 million passengers per average weekday on its subway facilities, while its bus operations carry approximately 1.5 million passengers each workday. NYCT provides essential public transportation services to the people of the City of New York 24 hours per day, 365 days a year. It is an affiliate of the Metropolitan Transportation Authority (MTA), also a public authority of the State of New York, which was created by the State Legislature to coordinate transportation policy in the New York metropolitan region.

Two MTA subsidiaries, the Long Island Rail Road (LIRR) and Metro-North Commuter Railroad (Metro-North) serve the suburban commuter population in the counties surrounding New York City. LIRR is the nation's largest commuter railroad, carrying in excess of 250,000 passengers per business day. Metro-North, which serves seven counties in New York State and

¹ For a description of NYCT's current communications systems and the limitations inherent in its current rapid transit operations communications systems, see Appendix A to this commentary.

extends service to Fairfield and New Haven counties in the State of Connecticut, is responsible for the safe transportation of more than 200,000 people each average weekday. Another MTA affiliate, popularly known as MTA Long Island Bus, provides bus transportation services to Nassau County and Western Suffolk County on Long Island and provides service to Eastern Queens County in New York City. Its ridership is approximately 85,000 passengers per workday. The combined operations of these affiliates are quite notable: one out of three people who use public mass transit in the United States do so on a bus, subway or commuter train operated by an MTA-affiliated entity.

I. "Public Safety": Public Mass Transit and Its Role

NYCT is cognizant of the fact that many people initially and, quite understandably, associate the concept of "public safety" with the traditional role of emergency first responder, such as Police, Fire and EMS. At the same time, however, public mass transit has an immediate and direct impact on the lives and safety of the people it serves. In addition to the recognized areas of public concern such as collisions, derailments, other accidents, and criminal and terrorist acts occurring in its facilities, mass transit also serves in certain geographical areas as a key component in local emergency management plans to evacuate people from areas of danger.

One need only look at various mass transit incidents which occurred over the past 12-18 months, both in the United States and internationally, to comprehend that public mass transit, because of the volume of people it carries daily, can have a profound and immediate impact on the safety of large numbers of people. During this time, we have witnessed a terrorist gas attack on the Tokyo subway system, and terrorist bombings on the Moscow and Paris subways, as well as multiple bus bombings in Israel. During this same period

of time, there have been several fatal subway and commuter train collisions in this country, each of which underscored the consequences of systems heavily dependent on human performance factors to avoid injury.

NYCT itself experienced a fatal collision about one year ago when, on June 5, 1995 at 6:00 a.m., two subway trains collided on the Williamsburg Bridge (which connects two boroughs within New York City). Had this accident occurred later in the morning with both trains carrying peak rush-hour passenger loads, the consequences would have been far more tragic. In February 1996, a multiple fatality occurred when two New Jersey Transit commuter trains collided; shortly thereafter, in Silver Spring, Maryland, a commuter train and Amtrak passenger train collided causing multiple fatalities and other serious injuries. Each of these accidents have highlighted the continuing need to search for technological improvements which can minimize, if not eliminate, the deadly consequences of human error. Many of those solutions may themselves be dependent upon systems which need radio frequencies to function.

Moreover, effective intra-agency communications systems and provision for interoperability among the multiple agencies responding to a mass transit incident and the transportation provider are critical for a variety of reasons: to prevent or minimize the likelihood of a major disaster; to mitigate the effects of an incident once it develops; and to ensure the safety of passengers and responding personnel. NYCT will briefly address these various areas of concern and relate how communications can impact its ability to deal effectively with the complexity of managing a vast transportation network which serves millions of people per day.

A. Anti-Terrorism Efforts and Crime Control.

It is not NYCT's intention to raise undue alarm concerning the potential for a terrorist attack to occur on a public mass transit facility. At the same time, however, it would ill behoove mass transit providers to turn a blind eye to acts occurring elsewhere. News reports of the Tokyo gas attack, for example, emphasize the need to have as thorough an understanding of the nature of such an incident as possible before rescue personnel are themselves exposed to danger. The need for prompt, reliable and effective voice communications, particularly in the challenging environment of underground facilities, is clear.

For quite obvious reasons, we cannot discuss the security measures taken to address the considerable task of protecting a complex transportation system, such as NYCT's, which is largely open to the public and which encompasses more than 650 miles of track, 469 stations, 5800 subway cars and 3600 buses. NYCT's more than 40,000 employees serve as valuable resources to alert appropriate people to unusual behavior or to ensure that suspicious packages are not left unattended. Among other things, token booth clerks can use an Emergency Booth Communications System, which is a direct line to their Stations Command Center and has the ability for Police Officers to monitor the call directly, in order to convey information about criminal activity or unusual occurrences. Train operators, conductors and bus operators have the ability to communicate by two-way radio with NYCT Command Center personnel to summon help.

With respect to criminal activities occurring on a mass transit system, it is essential for passenger safety that passengers have access to personnel who can quickly summon assistance. While subway crime in NYCT has